



# 8<sup>TH</sup> ARMY AVIATION TRAINING INFORMATION



**PURPOSE OF THIS TRAINING  
MODULE IS TO INFORM  
ARMY AVIATION LEADERS  
OF  
FACTORS INVOLVED IN  
RECENT KOREA ACCIDENTS  
AND PREVENTION  
MEASURES**



# TRAINING OUTLINE

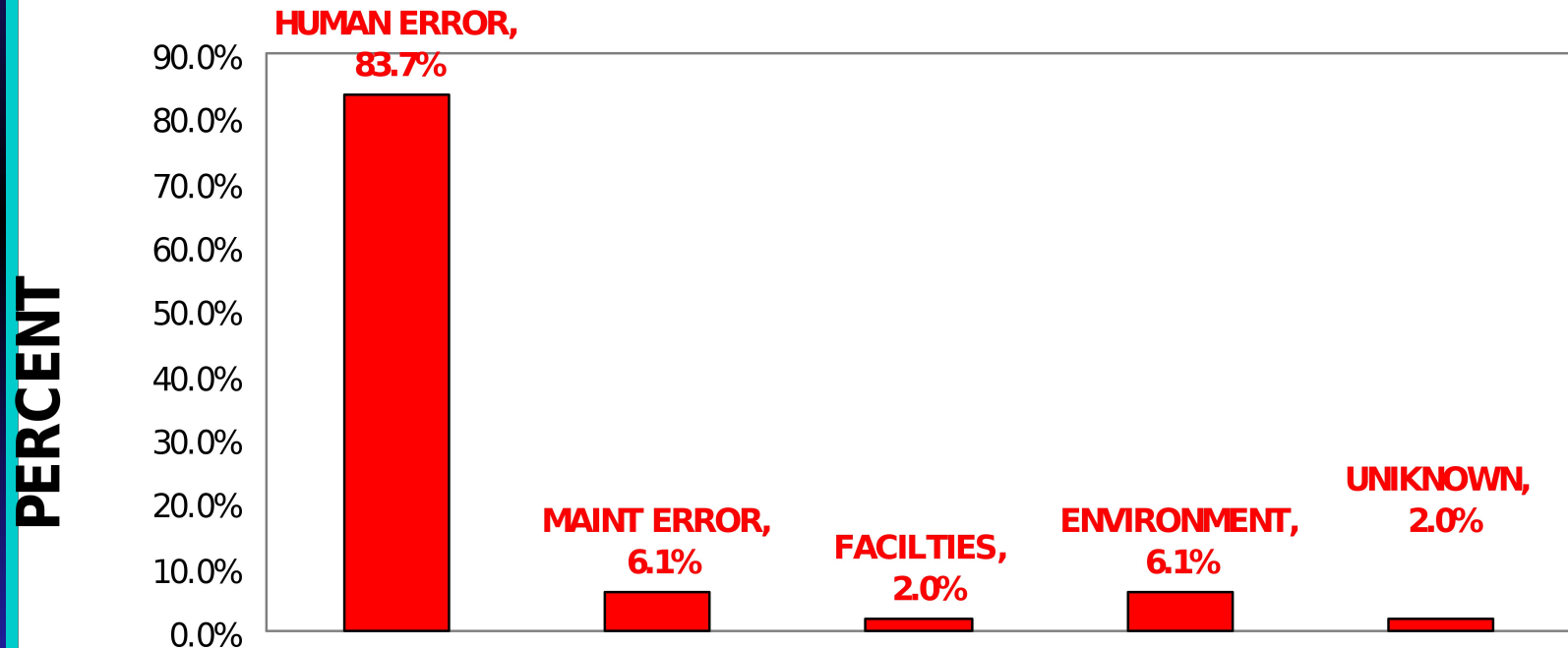


- **OVERALL REVIEW OF ACCIDENT FACTORS.**
- **FATALITIES IN KOREA SINCE 1995.**
- **REVIEW OF FY03 ACCIDENTS AND LESSONS LEARNED.**
- **REVIEW OF FY02 ACCIDENTS AND LESSONS LEARNED.**
- **TEST ON LESSONS LEARNED.**

# 8TH ARMY AVN ACCIDENTS



## CAUSES OF ACCIDENTS



**CAUSES OF ACCIDENTS FY 95 TO FY 03**

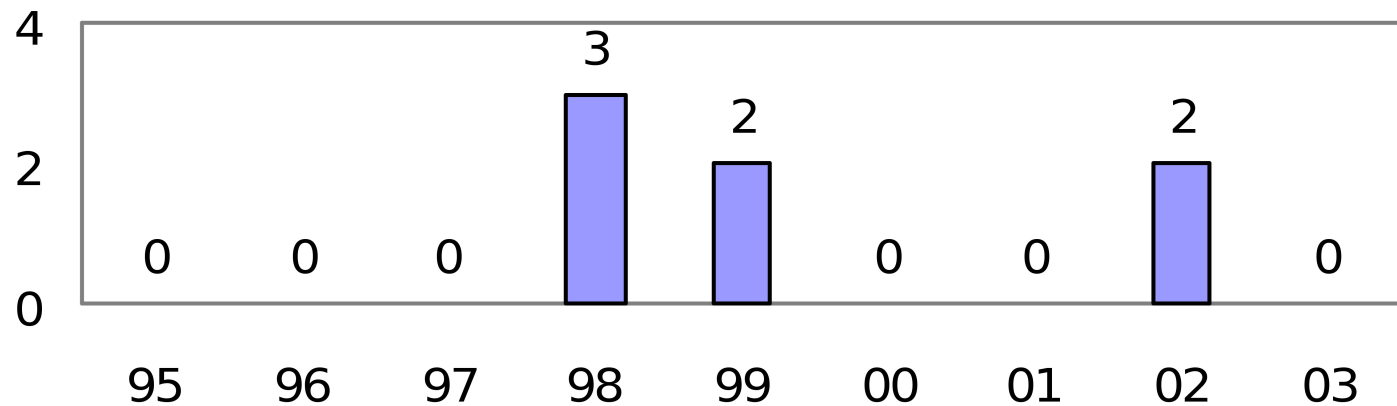
Leading cause of aviation accidents in Korea since 1995 has been human



# AVIATION FATALITIES IN KOREA



## FATALITIES







## FY 2003 IN REVIEW



- **AH-64D CLASS C ACCIDENT.**
- **HUMAN ERROR (TRAINING FAILURE).**
- **PILOT FAILED TO PROPERLY NEGOTIATE  
WIRE HAZARD.**
- **COST \$146,000.**



## ACCIDENT EVENT



**AIRCRAFT WAS TRANSITIONING SOUTH OVER THE CENTER OF A RIVER AT APPROXIMATELY 67 KTAS AND 92FT AGL IN AN ATTEMPT TO LINK-UP WITH THEIR WING MAN WHICH THEY HAD LOST SIGHT OF. THERE WAS A BREAKDOWN IN THE CREW'S DECISION MAKING PROCESS DURING THIS PORTION OF THE FLIGHT. THE PILOT IN COMMAND'S DECISION TO FLY DOWN THE CENTER OF A RIVER IS IN CONTRAVENTION TO THE BASIC PRINCIPLES TAUGHT IN FLIGHT SCHOOL. TC 1-201 STATES, "EXPECT" WIRES ALONG ROADS, WATER WAYS, NEAR TOWERS, AND IN THE VICINITY OF BUILDINGS". THE CREW FAILED TO DETECT THE WIRES CROSSING THEIR FLIGHT PATH IN ENOUGH TIME TO AVOID AND CLEAR THE WIRE OBSTACLE IN CONTRAVENTION TO TC 1-251, ATM TASK 1155, NEGOTIATE WIRE OBSTACLES, RESULTING IN AIRCRAFT STRIKING AND SEVERING TWO WIRES.**



Unapproved terrain  
flight training area  
requiring a 72 hour  
day recon prior to use,  
if aircraft intend to  
descend below 200 ft  
AGE

Route of Flight

Camp  
Page

Local flying area,  
includes approved  
terrain flight  
training areas and  
NOE routes. This

section is  
maintained in base  
ops

P 518

SCALE 1:100,000

2002.12.22





**Wires**



**Wires**

**Poles**

**The view the crew had of the wires at about 150 ft AGL traveling south down the river. At this altitude they could see the wire set poles on the eastern and western banks of the river but the wires themselves were difficult to see. The poles on the right side of the screen are not visible in this photograph**

**2002 12 18**

**View is approximately the altitude and flight path  
the aircraft was on just prior to the wire strike.**

**Aircraft 152 was traveling down the center of  
the river at an altitude of 92 ft AGL and airspeed  
67 knots. Aircraft 152 was on a 145 heading,  
traveling south.**







### SAMPLES

(Not the actual wires struck by the helicopter)

#### SMALL WIRE:

Uppermost wire on the set  
Purpose is lightning protection  
7 strands x 2mm steel

#### LARGE WIRE:

High tension line (22.9kv)  
1 Steel center core x 4.5mm  
6 aluminum strands x 4.5mm each wound around the core

**This is a sample of the wires that were struck. They were provided by the Korean Utility Company that repaired the power lines. The power line repair cost was roughly \$2300.00.**

2002 12 20





Damage to aircraft components





Damage to aircraft components





Damage to aircraft components





## Damage to aircraft components







Damage to aircraft components





# LESSONS LEARNED



- **PILOT SHOULD HAVE COMPLIED WITH EXISTING POLICIES AND PROCEDURES LISTED IN EIGHTH US ARMY REGULATION 95-1, TASK 1155 OF TC 1- 251, AND TC 1-201 GOVERNING WIRE HAZARDOUS AVOIDANCE.**
- **UNIT APPOINT A FLIGHT HAZARDS MAP COORDINATOR.**
- **COMMANDER ENSURE THE WIRE RECON IS CONDUCTED TO STANDARD AND THE RESULTS ARE POSTED TO A MASTER WIRE HAZARDS MAP AND ANNOTATED ON ALL ASSIGNED**



# LESSONS LEARNED



- **REQUIRE HAZARDS AND OBSTACLES BE BRIEFED AT ALL PRE- MISSION BRIEFS AND REHEARSALS.**
- **FURTHER RECOMMEND EVALUATE CURRENT CREW SELECTION AND PAIRING CRITERIA. EMPHASIS NEEDS TO BE PLACED ON CREW EXPERIENCE/ABILITY/MISSION COMPLEXITY AND SHOULD ALSO BE CAPTURED ON THE RISK ASSESSMENT MATRIX.**



## FY 2002 IN REVIEW



- **THERE WERE 2 CLASS "A" AH-64 ACCIDENTS IN WHICH 2 AVIATION PERSONNEL LOST THEIR LIVES.**
- **THERE WERE 4 CLASS "C" ACCIDENTS.**
- **THE TOTAL COST WAS APPROXIMATELY \$40,473,296.00**
- **5 OF 6 ACCIDENTS WERE ATTRIBUTED TO HUMAN ERROR AND 1 WAS ATTRIBUTED TO FACILITIES.**



## FY 2002 ACCIDENT



- **UH 60 CLASS C ACCIDENT**
- **CAUSE HUMAN ERROR (OVER CONFIDENCE)**
- **PILOT EXECUTED IMPROPER PROCEDURE TO UNLOCK THE TAIL WHEEL.**
- **COST \$48,000**
- **ENSURE PROPER TRAINING PRACTICES AND ADHERENCE TO PROCEDURES.**



# ACCIDENT EVENT



**PC CONDUCTED TWO MANEUVERS THAT COULD BE CHARACTERIZED AS HARD LANDINGS WHICH WERE RESPONSIBLE FOR DAMAGING THE TAIL WHEEL OF THE AIRCRAFT. AFTER A HYDRAULIC BOOST OFF MANEUVER AT A REMOTE LOCATION, THE PC COULD NOT GET HIS TAIL WHEEL TO UNLOCK. HE FLEW BACK TO HOME STATION AND STILL COULD NOT GET HIS TAIL WHEEL TO UNLOCK. SO HE INITIATED A SERIES OF BOUNCING MANEUVERS IN AN ATTEMPT TO UNLOCK THE TAIL WHEEL. THE COMBINATION OF THESE MULTIPLE LANDINGS CAUSED THE TAIL WHEEL STRUT TO FAIL, RESULTING IN THE ACCIDENT.**





# LESSONS LEARNED



- **PC'S OVERCONFIDENCE CAUSED HIM TO BELIEVE HE COULD FIX THE TAIL WHEEL PROBLEM FROM THE COCKPIT. IT ALSO CAUSED HIM NOT TO RECOGNIZE THE LIMITATIONS OF THE EQUIPMENT TO WITHSTAND A SERIES OF A HARD LANDINGS, PARTICULARLY WITH A HEAVY AIRCRAFT.**
- **AVIATION LEADERS SHOULD EMPHASIZE THE IMPORTANCE OF FOLLOWING ESTABLISHED PROCEDURES.**
- **LEADERS SHOULD LOOK FOR SIGNS OF OVERCONFIDENCE IN THEIR AVIATORS, SUCH AS A SERIES OF ACTIONS INDICATING THEY TEND TO BEND OR BREAK THE RULES. COUNSEL THEM ON FOLLOWING ESTABLISHED PROCEDURES.**



## FY 2002 ACCIDENT



- **CH-47D CLASS C ACCIDENT.**
- **HUMAN ERROR (CREW COORDINATION).**
- **WHILE CONDUCTING A SLING LOAD OPERATION THE PILOT MOVED THE AIRCRAFT WITHOUT PROPER COMMUNICATIONS WITH THE AIR AND GROUND CREWS.**
- **1 INJURY - HOSPITALIZED 30 DAYS OF RESTRICTED DUTY.**



# ACCIDENT EVENT



**WHILE HOVERING OVER SLING LOAD WITH 16-21 KNOTS OF TAIL WIND, GROUND CREW WAS UNABLE TO HOOK SLING LOAD TO AIRCRAFT. PILOT ATTEMPTED TO REPOSITION AIRCRAFT WITHOUT CREW COORDINATION BEING COMPLETE. AIRCREW IN CABIN CONTROLLING AIRCRAFT POSITION OVER THE LOAD WAS CHANGING CREW DUTY POSITIONS WITHOUT COORDINATION WITH PILOT. CREW LOST SITUATIONAL AWARENESS AS PILOT ATTEMPTED TO REPOSITION AIRCRAFT WITHOUT COORDINATION. GROUND CREW PLACED SLING ON FORWARD HOOK WITHOUT PILOT OR AIRCREW BEING AWARE. LOAD WAS DRAGGED, IT TIPPED UP ON IT'S END AND DUMPED THE HOOK UP TEAM FROM ATOP THE ISU-90.**



# LESSONS LEARNED



- **LEADERS SHOULD ENSURE AIRCREWS HAVE CONDUCTED CREW COORDINATION REFRESHER TRAINING. EMPHASIZE THAT SWITCHING OUT OF PERSONNEL SHOULD ONLY BE MADE AFTER CREW COORDINATION WITH THE PILOT. PILOT SHOULD REPOSITION AIRCRAFT ONLY AFTER CREW COORDINATION IS COMPLETED.**
- **EMPHASIZE EFFECTS OF WIND DURING HOVERING AND ESPECIALLY DURING SLING LOAD OPERATIONS.**
- **ESTABLISH TWO WAY RADIO CONTACT WITH THE GROUND GUIDES USING HAND AND ARM SIGNALS.**
- **ENSURE RISK MANAGEMENT FOR ALL SLING LOAD MISSIONS BOTH EXTERNAL AND INTERNAL.**



## FY 2002 ACCIDENT



- **AH-64D CLASS A ACCIDENT**
- **HUMAN ERROR (OVERCONFIDENCE).**
- **WHILE CONDUCTING NVS LOW LEVEL TRAINING**
- **AIRCRAFT INADVERTENTLY ENTERED IMC AND STRUCK TREES. THE AIRCRAFT BURNED DURING A**
- **POST CRASH FIRE THAT WAS CAUSED BY THE FUEL THAT LEAKED FROM THE NONCRASHWORTHY AUX FUEL TANK.**
- **COST \$20,000.000**



# ACCIDENT EVENT



**WHILE PERFORMING TERRAIN FLIGHT DURING A NIGHT VISION SYSTEM PROFICIENCY FLIGHT EVALUATION, THE AH-64D PILOT, FLYING IN THE BACKSEAT AT THE CONTROLS, FAILED TO DETECT AND RESPOND TO DETERIORATING WEATHER CONDITIONS. THAT IS, UPON ENTERING IIMC, HE FAILED TO ANNOUNCE INADVERTENT IMC, TRANSITION TO THE INSTRUMENT FLIGHT AND BEGIN RECOVERY PROCEDURES IN CONTRAVENTION OF TASK 1230, TC 1-251, ATM ATTACK HELICOPTER, AH-64D. AS A RESULT, THE CREW COULD NOT RECOVER THE AIRCRAFT PRIOR TO INITIAL IMPACT. THE AIRCRAFT CONTINUED FOR APPROXIMATELY 850 METERS PRIOR TO CONTACTING A SECOND SET OF TREES AND CRASHED.**



## ACCIDENT EVENT (CONT.)



**THE AIRCRAFT WAS DESTROYED AND CONSUMED IN A POST CRASH FIRE. ONE CREWMEMBER SUSTAINED MINOR INJURIES. THE PI'S ACTIONS WERE A RESULT OF OVERCONFIDENCE IN HIS OWN ABILITIES, HIS PERSONALITY AND INADEQUATE TRAINING FOR HOOD AND WEATHER TRAINING . THAT IS, HIS PERSONALITY AND OVERCONFIDENCE IN HIS OWN ABILITIES TO FLY THE AIRCRAFT USING THE NVS DID NOT ALLOW HIM TO ADEQUATELY DIAGNOSE AND RESPOND TO THE DETERIORATING WEATHER CONDITIONS. HIS INADEQUATE TRAINING IS A RESULT OF HIS HAVING ONLY 5.9 HOURS OF HOOD/WEATHER TRAINING SINCE 1997.**





**Aerial view looking at initial tree strikes and subsequent flight path.**





**Ground view of initial tree strikes.**





**SITE OF  
CRASH**

**erial view looking at the approach path at the crash site  
Approach heading is 074°**





**Ground view looking down the flight path .**





of aircraft wreckage. Aircraft was destroyed by post  
e that started from the 230 gallon ERFs tank rupturing





**Profile view of crash site. “X” denotes remains of 230 gallon external tank. Ground slope at crash site is approximately  $70^\circ$  Wreckage is 68 yards from the top of the saddle**



# LESSONS LEARNED



- **LEADERS SHOULD ENSURE ALL ASSIGNED AVIATORS MEET MINIMUM HOOD AND WEATHER REQUIREMENTS**  
**IAW THE UNIT SOP IN ORDER TO MAINTAIN PROFICIENCY.**
- **UNIT LEADERS SHOULD EVALUATE THE UNIT TRAINING PROGRAM TO ENSURE THAT PILOTAGE AND DEAD RECKONING SKILLS ARE ADEQUATELY STRESSED.**
- **LEADERS SHOULD ENSURE THEIR AIRCREWS REVIEW LOCAL IIMC PROCEDURES.**



# LESSONS LEARNED



- **LEADERS ENSURE THAT ALL MISSIONS ARE RISK ASSESSED AND APPROPRIATELY BRIEFED IAW AR 95-1 AND FM 100-14 RISK MANAGEMENT.**
- **LEADERS WILL ENSURE THAT ALL ASSIGNED AVIATORS THOROUGHLY PERFORM MISSION PLANNING IAW EA REG 95-1 AND UNIT SOP.**
- **LEADERS A LONG WITH UNIT IP'S SHOULD REITERATE WHAT ACTIONS TO TAKE WHEN ENCOUNTERING DETERIORATING WEATHER CONDITIONS.**
- **LEADERS MUST ENSURE THAT THEIR UNITS ARE COMPLYING WITH ERFS POLICIES IN EA95-1, EA385-10, AND ALL SAFETY OF USE MESSAGES.**





## FY 2002 ACCIDENT



- **AH-64A CLASS A ACCIDENT**
- **HUMAN ERROR (OVERCONFIDENCE).**
- **WHILE CONDUCTING NVS LOW LEVEL TRAINING.**
- **AIRCRAFT THE CREW SELECTED TO ENTER WEATHER CONDITIONS WITH EXCESSIVE SPEED AND CRASHED INTO MOUNTAIN.**
- **COST \$20,220,000**
- **2 KILLED.**





# ACCIDENT EVENT



**WHILE PERFORMING TERRAIN FLIGHT DURING A NIGHT VISION SYSTEM CONTINUATION TRAINING MISSION, THE CREW OF THE AH-64A, FAILED TO PROPERLY MODIFY FLIGHT PROCEDURES IN RESPONSE TO DETERIORATING ENVIRONMENTAL CONDITIONS. THAT IS, THE CREW, UPON DEPARTING FROM THEIR INTERMEDIATE AIRFIELD UNDER SPECIAL VISUAL FLIGHT RULES PROCEDURES, MAINTAINED AIRSPEED OF APPROXIMATELY 100 KIAS WITH KNOWN VISIBILITY AT THE AIRFIELD OF TWO MILES AND ONE-MILE VISIBILITY FORECASTED ENROUTE IN CONTRAVENTION OF TASK 1035, PERFORM TERRAIN FLIGHT, OF TC 1-214, ATM ATTACK HELICOPTER, AH-64A.**



## ACCIDENT EVENT (CONT.)



**AS A RESULT, THE AIRCRAFT ENCOUNTERED  
UNDETERMINED WEATHER CONDITIONS AND FLEW  
INTO**

**RISING TERRAIN. BOTH CREW MEMBERS WERE  
FATALLY INJURED AND THE AIRCRAFT WAS  
DESTROYED. THE CREW'S ACTIONS WERE A RESULT OF  
OVERCONFIDENCE IN THE PC'S OWN ABILITIES. THAT  
IS, THE PC WAS ON HIS FOURTH TOUR IN KOREA AND  
HAD FLOWN THE ROUTE MANY TIMES BEFORE. HIS  
PRIOR EXPERIENCE AND KNOWLEDGE OF THE ROUTE  
LED TO HIS OVERCONFIDENCE IN HIS ABILITY TO FLY  
THE ROUTE WITHOUT REDUCING HIS AIRSPEED  
COMMENSURATE WITH THE REDUCED VISIBILITY  
CONDITIONS PRESENT.**



## ACCIDENT EVENT (CONT.)



**THE BOARD ALSO DISCOVERED SEVERAL ISSUES WITH THE UNIT AVIATION LIFE SUPPORT EQUIPMENT (ALSE) PROGRAM. NEITHER CREWMEMBER HAD A SURVIVAL RADIO IN CONTRAVENTION OF AR 95-1. WHILE IT IS NOTED THAT A LACK OF SURVIVAL RADIOS DID NOT CONTRIBUTE TO THE SEVERITY OF THE INJURIES IN THIS ACCIDENT DUE TO THE IMMEDIATELY FATAL INJURIES RECEIVED BY THE CREW, A LACK OF RADIOS COULD SERIOUSLY DEGRADE SEARCH AND RESCUE EFFORTS AND CONTRIBUTE TO THE SEVERITY OF THE INJURIES IN A FUTURE SURVIVABLE ACCIDENT. IN ADDITION, A REVIEW OF ALSE RECORDS AND PROCEDURES REVEALED NUMEROUS DEFICIENCIES WITH THE UNIT'S ALSE PROGRAM.**



## ACCIDENT EVENT (CONT.)



**A RELATED ALSO ISSUE IS THE ISSUE OF FLIGHT CLOTHING IN KOREA. THE BOARD REVIEWED THE TURN-IN, ORDERING AND REPAIR PROCEDURES FOR THE ABDU AND CONCLUDED THAT REPAIRS MADE BY THE CONTRACTED KOREAN NATIONAL BUSINESS ARE NOT BEING INSPECTED FOR COMPLIANCE BEFORE BEING PLACED BACK ON THE CIF ISSUE SHELVES AT CAMP HUMPHREYS.**



ACCIDENT  
SITE

**Aerial view looking at the approximate flight path.**





**Flight  
Path**

**Aerial view looking East.**



view looking just above the approach path on a heading of 45°. Elevation at initial ground impact is 885' M





ound view looking back at the flight path . Distance from  
first tree strikes to ground impact is ~100 feet.





**Close up of aircraft wreckage. Aircraft came to rest in  
up and  $\sim 40^\circ$  right roll attitude 83 feet from ground**





**Aircraft struck an 11" diameter tree with the aircraft nose at point**

**6 feet below the tree top and 16 feet below the tree base**





# LESSONS LEARNED



- **LEADERS NEED TO ENSURE THAT PILOTS ARE IN COMPLIANCE WITH ALL POLICIES, PROCEDURES AND REGULATIONS FOR FLYING IN THE ROK TO INCLUDE EA REG 95-1, FLIGHT REGULATIONS, USFK REG 95-14, FLIGHT INFORMATION AND FLIGHT FOLLOWING SERVICES, AND EA REG 95-33, AVIATION SEARCH AND RESCUE.**
- **NEVER EXCEED YOUR LIMITATIONS.**
- **REMAIN OVER NIGHT.**
- **SLOW DOWN IN POOR WEATHER.**
- **REMEMBER ENROUTE WEATHER MAY DEVELOP AND FORECAST CANNOT ACCOUNT FOR ALL FOG FORMATION.**



# LESSONS LEARNED



- **LEADERS WILL ENSURE ALL REQUIRED ELSE EQUIPMENT FOR FLIGHT IS PRESENT ONBOARD UNIT**  
**AIRCRAFT IAW AR 95-1 AND EA 95-1.**
- **LEADERS WILL ENSURE THAT ELSE IS BEING MAINTAINED AND AVAILABLE FOR AVIATORS AND CREWMEMBERS.**
- **LEADERS MUST DISCUSS THE IMPORTANCE OF AIRCREWS MAINTAINING THEIR PERSONAL FLIGHT EQUIPMENT.**



## FY 2002 ACCIDENT



- **CH-47D CLASS C ACCIDENT.**
- **HUMAN ERROR (INDIVIDUAL FAILURE).**
- **PC FAILED TO MAINTAIN CONTROL WHILE CONDUCTING TERRAIN FLIGHT, ENTERED INTO UNUSUAL ATTITUDE AND OVER-TORQUED AIRCRAFT TO AVOID COLLISION WITH GROUND.**
- **COST \$168,948**





# ACCIDENT EVENT



**DURING CRUISE FLIGHT THE BATTALION S-3 WHO WAS SITTING IN THE BACK OF THE AIRCRAFT INSTRUCTED THE PILOT (PI) TO SLOW BACK ON HIS AIRSPEED. THE PILOT WAS INTIMIDATED AND INITIATED AN AGGRESSIVE DECELERATION IN AN ATTEMPT TO BRING THE AIRCRAFT TO A FULL STOP. THE AIRCRAFT WAS PLACED IN A 30 DEGREE NOSE HIGH ATTITUDE AND BEGAN TO SLIP BACKWARDS. THE PILOT APPLIED EXCESSIVE THRUST TO ARREST THE DECENT CAUSING A DUAL GENERATOR FAILURE AND THE EMERGENCY POWER FLAG TO TRIP. THE PILOT IN COMMAND (PC) TOOK THE CONTROLS AND RECOVERED THE AIRCRAFT AT ABOUT 10 FEET ABOVE THE TREES. THE PC FLEW THE AIRCRAFT BACK TO THE AIRFIELD, LANDED AND SHUT DOWN WITHOUT FURTHER INCIDENT.**



# LESSONS LEARNED



- **LEADERS SHOULD REITERATE THE IMPORTANCE THAT NO PILOT SHOULD BE INTIMIDATED BY ANY MEMBER OF THE FLIGHT REGARDLESS OF THEIR RANK OR POSITION.**
- **LEADERS SHOULD ENSURE THAT PROPER CREW COORDINATION TECHNIQUES ARE APPLIED WHILE FLYING THE AIRCRAFT AND DON'T LET OTHERS INFLUENCE YOUR DECISIONS.**
- **REMAND PILOTS TO ALWAYS BE CONFIDENT IN THEIR ABILITIES TO CONTROL THE AIRCRAFT AND USE GOOD JUDGEMENT.**
- **STRESS THE IMPORTANCE OF FLYING THE AIRCRAFT FIRST!**



## FY 2002 ACCIDENT



- **CH-47D CLASS C ACCIDENT.**
- **SUPPORT FAILURE (FACILITIES).**
- **WHILE EXECUTING GROUND TAXI AIRCRAFT WHEEL.**

**BROKE THROUGH CEMENT COVER OVER DRAINAGE**

**DITCH.**

- **COST \$36,348**





# ACCIDENT EVENT



**WHILE GROUND TAXING THE CH-47D THE PC DROVE THE AIRCRAFT TO THE FAR RIGHT OF THE TAXI LINE ON THE TAXI RAMP. WHEN TURNING 180 DEGREES HE RAN OFF THE OUTER EDGE OF THE TAXI LANE ONTO UNMARKED CONCRETE DRAIN COVERS. THE CONCRETE COVER COLLAPSED CAUSING THE HELICOPTER WHEEL TO DROP INTO A 30 INCH DEEP DRAINING DITCH. FORWARD MOVEMENT OF THE AIRCRAFT SNAPPED THE WHEEL OFF.**



# LESSONS LEARNED



- **LEADERS NEED TO REITERATE THE IMPORTANCE OF HAVING ADEQUATE ROOM TO MANEUVER THEIR AIRCRAFT AT ALL TIMES. REMIND PILOTS TO MAINTAIN SITUATIONAL AWARENESS AND BRIEF ALL ASSIGNED PERSONNEL ON THE FACTS AND CIRCUMSTANCES SURROUNDING THIS INCIDENT WITH EMPHASIS ON NOT CONDUCTING GROUND TAXI NEAR THE OUTER EDGE OF THE PAVED SURFACE.**
- **REMIND PILOTS TO BE AWARE THAT HOME STATION FACILITY STANDARDS DO NOT CARRY OVER TO ROK-AF FACILITIES (DIFFERENT AIRCRAFT DIFFERENT CRITERIA).**
- **TO BE EXTREMELY CAUTIOUS WHILE ON STRANGE AIRFIELDS.**



# WEATHER IN KOREA



- **WEATHER OBSERVATION FACILITIES ARE EXTREMELY LIMITED.**
- **WEATHER FORCASTING ACCURATE FOR IMMEDIATE AREA**  
**OF US SITES.**
- **WEATHER ENROUTE CAN BE DIFFERENT.**
- **MOUNTAINOUS TERRAIN OF KOREA MAKES ITS OWN WEATHER PROBLEMS.**
- **SUMMER WEATHER HAS LIMITED VISIBILITY CAUSES INCREASE IN MOUNTAIN TOP FOG.**
- **WINTER WEATHER LIMITED CEILINGS A VISIBILITY.**





# WEATHER IN KOREA



- **KOREA IS A PENINSULA.**
- **MOIST AIR IS CONSTANTLY OVER THE ENTIRE AREA.**
- **SUMMER WEATHER HAS INCREASE CEILINGS BUT FREQUENTLY BLANKETS OF FOG COVER THE MOUNTAIN TOPS.**
- **WINTER WEATHER SEES LOWER CEILINGS AND REDUCED VISIBILITY.**



# COMMUNICATIONS IN KOREA



- **US ARMY FLIGHT FOLLOWING CAPABILITIES ARE LIMITED.**
- **ROK FACILITIES DO NOT MAINTAIN GOOD ENGLISH SPEAKERS.**
- **ROK AIRSPACE NOT ADEQUATELY PRESENTED ON US MAPS.**
- **THROUGHOUT KOREA THERE ARE MANY DEAD AREAS WHERE RADIO COMMUNICATION IS NOT**

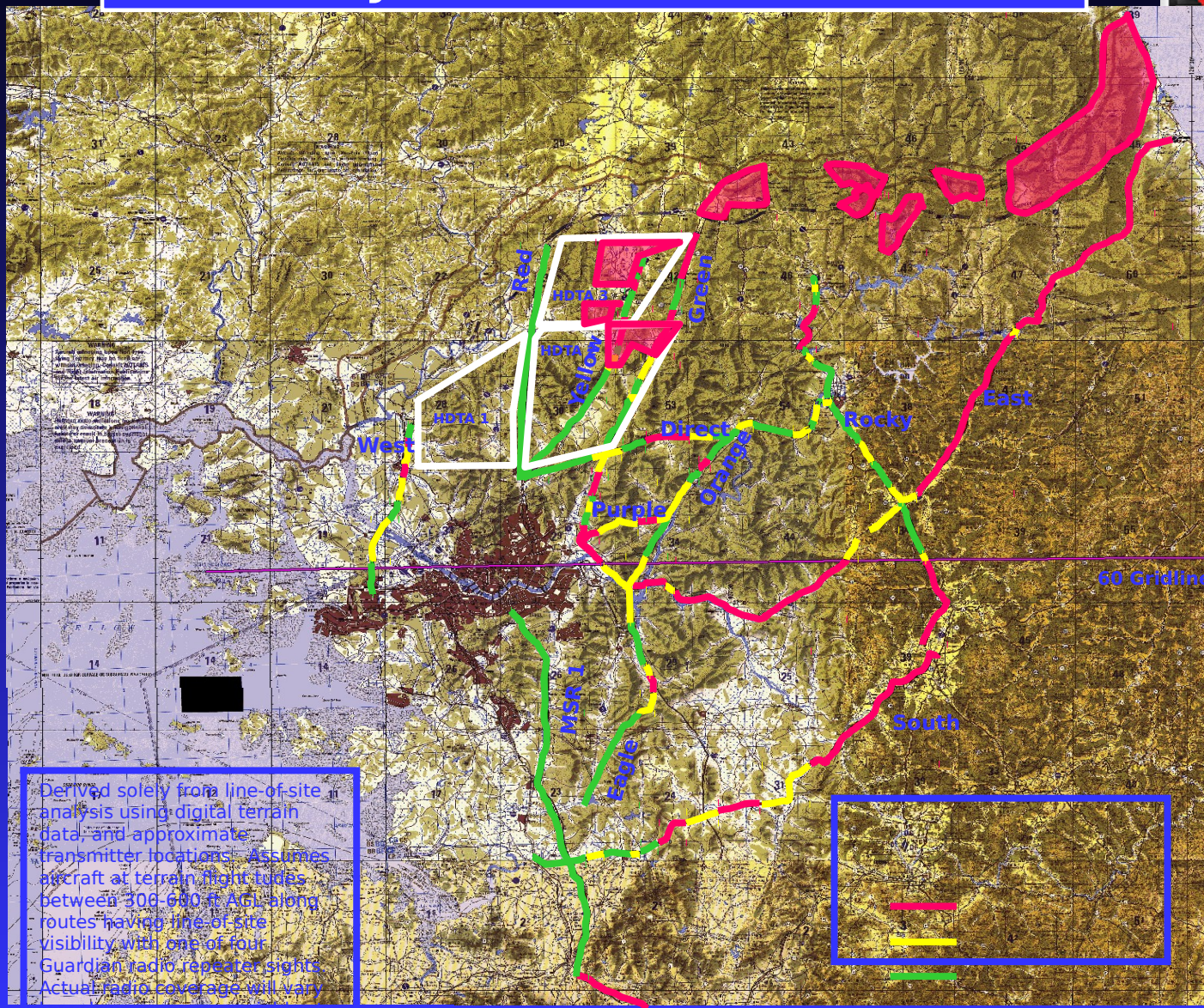




# Radio Coverage on Eighth Army Preferred Routes



Updated  
17 Jan 03







# 1999 – 2003 ACCIDENT SUMMARY



<u>ACCIDENT</u>	<u>FY99</u>	<u>FY</u> <u>0</u> <u>0</u>	<u>FY</u> <u>0</u> <u>1</u>	<u>FY</u> <u>0</u> <u>2</u>	<u>FY</u> <u>0</u> <u>3</u>	<u>TOTAL</u>
TREE STRIKE/GND CONTACT	3	2	3	2		10
BROWN OUT	1					1
THINGS FALLING*	1	1				2
WIRE STRIKE	2		1		1	4
OVERSPEED/OVER TQ	1			1		1
IMPROPER PROC				1		1
FACILITIES				1		1

**MOST ACCIDENTS IN KOREA INVOLVE AVIATORS FLYING THE AIRCRAFT INTO THE TREES/GROUND/WIRES.**



# OVERVIEW QUESTIONS



**WHAT IS THE PRIMARY CAUSE OF ACCIDENTS IN 8<sup>TH</sup> ARMY?**

- 1. WEATHER**
- 2. HUMAN ERROR**
- 3. FACILITES**
- 4. SUPPORT**



# OVERVIEW QUESTIONS



**PRIOR TO CONDUCTING AN NOE FLIGHT WHAT SET OF REGULATIONS SHOULD THE PILOT BE FAMILIAR WITH?**

- 1. EA 95-2, TASK 1133 OF TC 1-251 AND TC 1-201.**
- 2. REGULATION 95-1, TASK 1155 OF TC 1- 251, AND TC 1-201 GOVERNING WIRE HAZARDOUS AVOIDANCE.**
- 3. AR 95-1, TASK 1155 OF TC 1- 351, AND TC 1-202.**





# OVERVIEW QUESTIONS



**IAW EA 385-10 HOW SOON BEFORE CONDUCTING AN  
NOE  
FLIGHT SHOULD A RECON OF THE AREA BE CONDUCTED?**

- 1. WITHIN A 12 HOUR PERIOD OF THE FLIGHT.**
- 2. WITHIN 18 HOURS.**
- 3. WITHIN 24 HOURS.**
- 4. NO MORE THAN 72 HOURS BEFORE AND NOT LESS THAN OFFICIAL SUNSET OF THE ACTUAL DAY THE FLIGHT IS SCHEDULED.**



# OVERVIEW QUESTIONS



**IF YOU SUSPECT A HARD LANDING YOU SHOULD?**

- 1. DISREGARD IT AS UNIMPORTANT.**
- 2. MENTION IT TO MAINTENANCE PERSONNEL AFTER FLIGHT/TRAINING IS COMPLETE.**
- 3. SHUT DOWN AIRCRAFT AND HAVE MAINTENANCE PERSONNEL INSPECT AIRCRAFT.**
- 4. AFTER FLIGHT MAKE A WRITE-UP AS HAVING A SUSPECTED HARD LANDING AND LEAVE IT UP TO MAINTENANCE PERSONNEL TO DETERMINE WHETHER THERE WAS ONE OR NOT.**



# OVERVIEW QUESTIONS



**WHILE CONDUCTING SLING LOAD OPERATIONS IT IS IMPORTANT TO CONDUCT CREW COORDINATION PRIOR TO OPERATIONS, BUT ONLY TO THE CREW IN THE AIRCRAFT AND NOT ON THE GROUND?**

- 1. TRUE**
- 2. FALSE**





# OVERVIEW QUESTIONS



**PRIOR TO CONDUCTING SLING LOAD OPERATIONS WHAT SHOULD PILOTS TAKE INTO CONSIDERATION PRIOR TO THE MANEUVER?**

- 1. EFFECT OF WIND DURING HOVERING AND DURING SLING LOAD OPERATIONS.**
- 2. THAT TWO WAY RADIO CONTACT WITH THE GROUND GUIDES USING HAND AND ARM SIGNALS IS AVAILABLE.**
- 3. THAT RISK MANAGEMENT FOR ALL SLING LOAD MISSIONS BOTH EXTERNAL AND INTERNAL WERE COMPLETED.**
- 4. ALL THE ABOVE.**



# OVERVIEW QUESTIONS



## **WHAT REGULATION COVERS IIMC RECOVERY PROCEDURES?**

- 1. TC 1-251**
- 2. AR 95-1**
- 3. EA AR 385-95**
- 4. EA AR 95-2**



# OVERVIEW QUESTIONS



**WHAT REGULATION SHOULD BE READ AND UNDERSTOOD THOROUGHLY BEFORE PERFORMING TERRAIN FLIGHT?**

- 1. EA REG 95-3**
- 2. EA REG 95-1 AND UNIT SOP**
- 3. TC 1-201**
- 4. FM 1-203**





# OVERVIEW QUESTIONS



**WHEN DEPARTING FROM AN INTERMEDIATE AIRFIELD  
UNDER SPECIAL VISUAL FLIGHT RULES PROCEDURES  
WHAT EXTRA SAFETY PRECAUTIONS COULD YOU  
TAKE  
TO ARRIVE SAFELY BACK AT YOUR HOME BASE?**

- 1. REMAIN OVER NIGHT, NEVER EXCEED YOUR LIMITATIONS.**
- 2. SLOW DOWN IN POOR WEATHER.**
- 3. NEVER PRESSURE YOURSELF TO GET HOME.**
- 4. ALL THE ABOVE.**



# OVERVIEW QUESTIONS



**THE 1999 - 2003 ACCIDENT SUMMARY CHART  
INDICATED  
THAT THE MAJORITY OF ACCIDENTS IN KOREA  
INVOLVED?**

- 1. WIRE STRIKES.**
- 2. TREE STRIKES.**
- 3. WEATHER.**
- 4. BEING OVER CONFIDENT.**



# ANSWERS TO QUESTIONS



- 1. HUMAN ERROR.**
- 2. REGULATION 95-1, TASK 1155 OF TC 1- 251, AND TC 1-201.**
- 3. GOVERNING WIRE HAZARDOUS AVOIDANCE.  
NO MORE THAN 72 HOURS BEFORE AND NOT LESS THAN OFFICIAL SUNSET OF THE ACTUAL DAY THE FLIGHT IS SCHEDULED.**
- 4. SHUT DOWN AIRCRAFT AND HAVE MAINTENANCE PERSONNEL INSPECT AIRCRAFT.**
- 5. FALSE.**
- 6. ALL THE ABOVE.**
- 7. TC 1-251**
- 8. EA REG 95-1 AND UNIT SOP.**
- 9. ALL THE ABOVE.**
- 10. TREE STRIKES.**